



# SEQUENCE LISTING

<110> DESPRES, Philippe  
CATTEAU, Adeline

<120> SMALL PEPTIDES HAVING APOPTOTIC ACTIVITIES AND THEIR APPLICATIONS

<130> 239786US0CIP

<150> US 10/311,213

<151> 2003-05-19

<150> PCT/IB01/01570

<151> 2001-06-18

<150> US 60/212,129

<151> 2000-06-16

<160> 40

<170> PatentIn version 3.1

<210> 1

<211> 45

<212> DNA

<213> Artificial sequence

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gacaaacggtt ccgtggctct gtgacacacg tgggacttgg tctag

45

<210> 2

<211> 33

<212> DNA

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<223> 3' primer for M1-40/DEN-1

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ctattcccag cggccgctag gccattgatg gtg

33

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<211> 35

<212> DNA

<213> Artificial sequence

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<400> 3  
 cacagaagac tgtacagatc agtggcactc gttcc 35

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 <212> DNA  
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<400> 5  
 agacgcgtgt acagatcagt ggcgttagct ccccatgtcg cc 42

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 <223> 5' primer for M1-40/JE  
  
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 aagcgaatgt acagatccgt gtcggtccaa acacatgggg agag 44  
  
 <210> 10  
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 <223> 3' primer for M1-40/JE  
  
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 attgccgcgg ccgcgacaat ttcaactgta agccggagcg acc 43  
  
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 <223> 5' primer for M1-40/WN  
  
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 agacgcatgt acaggtcact gacagtgcag 30  
  
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 <223> 5' primer for M1-40/YF  
  
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 <212> DNA  
 <213> Artificial sequence  
  
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 <223> 3' primer for M1-40/YF  
  
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 tgtcagtgcg gccgctgcag tgatcatgagt aggccggacc aac 43  
  
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 <211> 23  
 <212> DNA  
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 <223> 5' primer for M1-30/DEN-2, M1-20/DEN-2 and M9-30/DEN-2  
  
 <400> 15  
 ttttggcagt acatcaatgg gcg 23  
  
 <210> 16  
 <211> 38  
 <212> DNA  
 <213> Artificial sequence  
  
 <220>  
 <223> 3' primer for M1-30/DEN-2 and M9-30/DEN-2  
  
 <400> 16

aagatcgcgg ccgcaattca ctggacatgt ttccaggc 38

<210> 17  
<211> 40  
<212> DNA  
<213> Artificial sequence

<220>  
<223> 3' primer for M1-20/DEN-2

<400> 17  
tttccgcggc cgctctgatc acatccatgt ttcagttcag 40

<210> 18  
<211> 34  
<212> DNA  
<213> Artificial sequence

<220>  
<223> 5' primer for M9-40/DEN-2

<400> 18  
tggttctgta catgggaatg ggactggaga cacg 34

<210> 19  
<211> 24  
<212> DNA  
<213> Artificial sequence

<220>  
<223> 3' primer for M9-40/DEN-2, M20-40/DEN-2 and M32-40/DEN-2

<400> 19  
tcttcagtt cattcagggc accg 24

<210> 20  
<211> 33  
<212> DNA  
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<223> 5' primer for M20-40/DEN-2

<400> 20  
actgaaatgt acatgtcatc agaaggggcc tgg 33

<210> 21

<211> 31  
 <212> DNA  
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 <223> 5' primer for M32-40/DEN-2  
  
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 <210> 22  
 <211> 31  
 <212> DNA  
 <213> Artificial sequence  
  
 <220>  
 <223> 5' primer for M1-40/DEN-1 followed by the transmembrane domain of  
 mouse CD72  
  
 <400> 22  
 tgctggagga atagcagtct taaaaattgg c 31  
  
 <210> 23  
 <211> 29  
 <212> DNA  
 <213> Artificial sequence  
  
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 <223> 3' primer for M1-40/DEN-1 followed by the transmembrane domain of  
 mouse CD72  
  
 <400> 23  
 tattggtggc ttcccaaadc ctggtcccc 29  
  
 <210> 24  
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 <212> DNA  
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 <223> 3' primer for M1-40/DEN-1 followed by the transmembrane domain of  
 mouse CD72  
  
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 agacacccgg ggatagagaa ctcccaggc 29  
  
 <210> 25  
 <211> 54

<212> DNA  
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 <223> 3' primer for M1-40/DEN-1 followed by the KDEL motif  
  
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 taaagcggcc gctcacaact cgtcttttgg gtgtctcaaa gcccaagtct ccac 54  
  
 <210> 26  
 <211> 44  
 <212> DNA  
 <213> Artificial sequence  
  
 <220>  
 <223> 3' primer for mutant protein C95-114-EGFP-M1-40/YF.wt  
  
 <400> 26  
 agagtcgcgg ccgcaaata ggggttcctc accaaccatc tctc 44  
  
 <210> 27  
 <211> 61  
 <212> DNA  
 <213> Artificial sequence  
  
 <220>  
 <223> 3' primer for mutant protein C95-114-EGFP-M1-40/YF.17D (T34, I36,  
 L37, H39)  
  
 <400> 27  
 agagtcgcgg ccgcaaata ggggtgcctc aggatccatg tctcaatctt ttggagttgc 60  
 c 61  
  
 <210> 28  
 <211> 18  
 <212> PRT  
 <213> Dengue virus type 1  
  
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 <221> misc\_feature  
 <223> Signal sequence  
  
 <400> 28  
 Met Asn Arg Arg Lys Arg Ser Val Thr Met Leu Leu Met Pro Thr Ala  
 1 5 10 15

Leu Ala

<210> 29  
<211> 9  
<212> PRT  
<213> Dengue virus type 2

<220>  
<221> misc\_feature  
<223> Peptide of the M protein conferring apoptotic activity

<400> 29

Ile Glu Thr Trp Ile Leu Arg His Pro  
1 5

<210> 30  
<211> 33  
<212> DNA  
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<220>  
<223> 5' primer for M1-40/DEN-1 followed by the transmembrane domain of  
mouse CD72

<400> 30  
gaggcggcta gcgctatggc tgacgctatc acg 33

<210> 31  
<211> 40  
<212> PRT  
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<220>  
<221> misc\_feature  
<223> M1-40/DEN-2

<400> 31

Ser Val Ala Leu Val Pro His Val Gly Met Gly Leu Glu Thr Arg Thr  
1 5 10 15

Glu Thr Trp Met Ser Ser Glu Gly Ala Trp Lys His Val Gln Arg Ile  
20 25 30



Glu Thr Trp Ile Leu Arg His Pro  
35 40

<210> 32  
<211> 30  
<212> PRT  
<213> Dengue virus type 2

<220>  
<221> misc\_feature  
<223> M1-30/DEN-2

<400> 32

Ser Val Ala Leu Val Pro His Val Gly Met Gly Leu Glu Thr Arg Thr  
1 5 10 15

Glu Thr Trp Met Ser Ser Glu Gly Ala Trp Lys His Val Gln  
20 25 30

<210> 33  
<211> 20  
<212> PRT  
<213> Dengue virus type 2

<220>  
<221> misc\_feature  
<223> M1-20/DEN-2

<400> 33

Ser Val Ala Leu Val Pro His Val Gly Met Gly Leu Glu Thr Arg Thr  
1 5 10 15

Glu Thr Trp Met  
20

<210> 34  
<211> 22  
<212> PRT  
<213> Dengue virus type 2

<220>  
<221> misc\_feature  
<223> M9-30/DEN-2

<400> 34

Gly Met Gly Leu Glu Thr Arg Thr Glu Thr Trp Met Ser Ser Glu Gly  
1 5 10 15

Ala Trp Lys His Val Gln  
20

<210> 35

<211> 32

<212> PRT

<213> Dengue virus type 2

<220>

<221> misc\_feature

<223> M9-40/DEN-2

<400> 35

Gly Met Gly Leu Glu Thr Arg Thr Glu Thr Trp Met Ser Ser Glu Gly  
1 5 10 15

Ala Trp Lys His Val Gln Arg Ile Glu Thr Trp Ile Leu Arg His Pro  
20 25 30

<210> 36

<211> 21

<212> PRT

<213> Dengue virus type 2

<220>

<221> misc\_feature

<223> M20-40/DEN-2

<400> 36

Met Ser Ser Glu Gly Ala Trp Lys His Val Gln Arg Ile Glu Thr Trp  
1 5 10 15

Ile Leu Arg His Pro  
20

<210> 37

<211> 40  
<212> PRT  
<213> Yellow fever virus

<220>  
<221> misc\_feature  
<223> M1-40/YF.17D

<400> 37

Ala Ile Asp Leu Pro Thr His Glu Asn His Gly Leu Lys Thr Arg Gln  
1 5 10 15

Glu Lys Trp Met Thr Gly Arg Met Gly Glu Arg Gln Leu Gln Lys Ile  
20 25 30

Glu Arg Trp Phe Val Arg Asn Pro  
35 40

<210> 38  
<211> 40  
<212> PRT  
<213> Dengue virus type 1

<220>  
<221> misc\_feature  
<223> M1-40/DEN-1

<400> 38

Ser Val Ala Leu Ala Pro His Val Gly Leu Gly Leu Glu Thr Arg Thr  
1 5 10 15

Glu Thr Trp Met Ser Ser Glu Gly Ala Trp Lys Gln Ile Gln Lys Val  
20 25 30

Glu Thr Trp Ala Leu Arg His Pro  
35 40

<210> 39  
<211> 31  
<212> PRT  
<213> Dengue virus type 1

<220>  
<221> misc\_feature  
<223> Sub-sequence of 31 aminoacids of M1-40/DEN-1

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Ser Val Ala Leu Ala Pro His Val Gly Leu Gly Leu Glu Thr Arg Thr  
1 5 10 15

Glu Thr Trp Met Ser Ser Glu Gly Ala Trp Lys Gln Ile Gln Lys  
20 25 30

<210> 40  
<211> 9  
<212> PRT  
<213> Dengue virus type 1

<220>  
<221> misc\_feature  
<223> Subsequence of 9 aminoacids of M1-40/DEN-1

<400> 40

Val Glu Thr Trp Ala Leu Arg His Pro  
1 5